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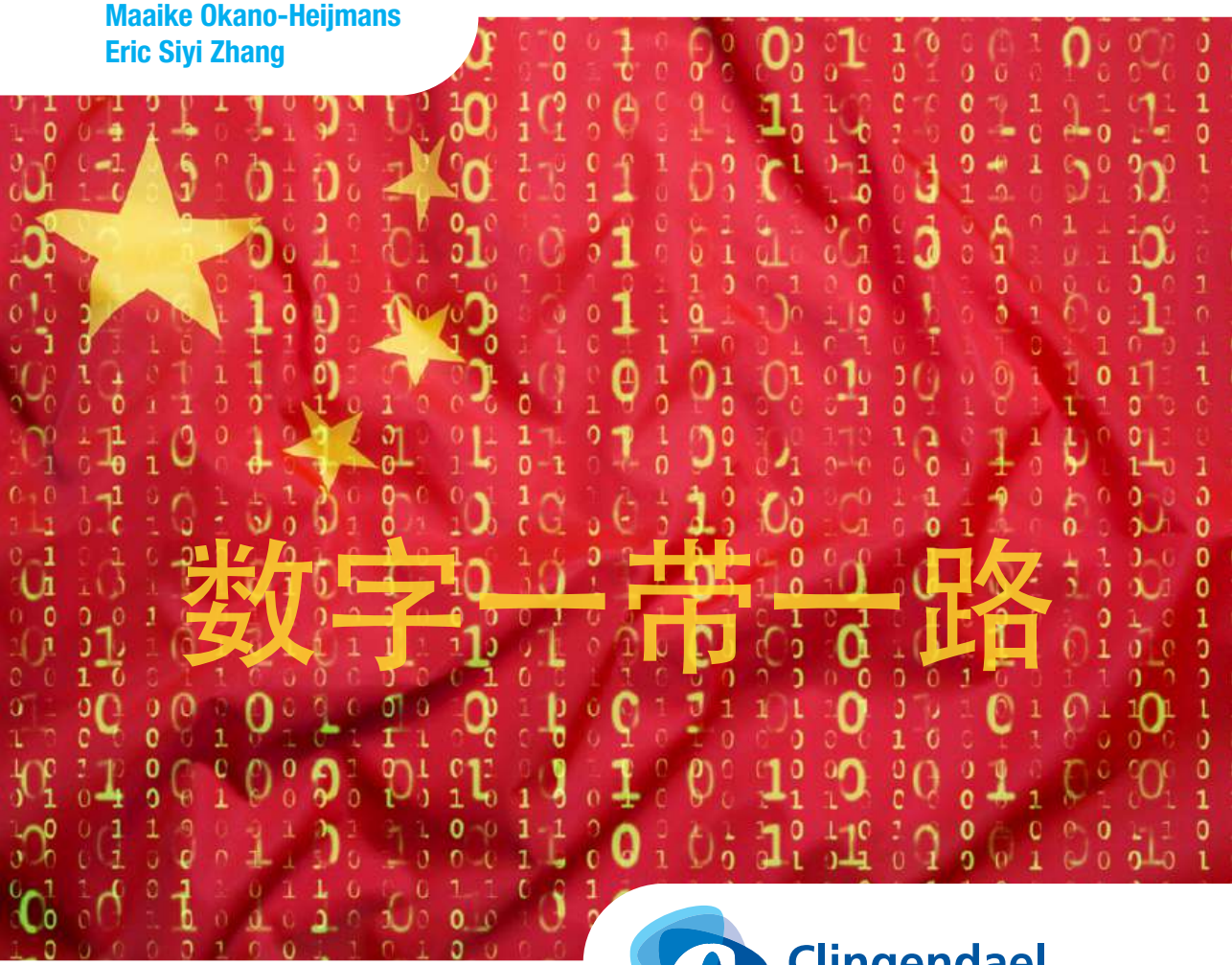
Unpacking China's Digital Silk Road

Brigitte Dekker
Maaike Okano-Heijmans
Eric Siyi Zhang

Clingendael Report



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July 2020

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Summary

Aiming to contribute to a better understanding of China's Digital Silk Road (DSR) and its implications for Europe, this Clingendael Report analyses the concept, objectives and activities of the digital subset of China's Belt and Road Initiative. *China Standards 2035* (a blueprint to set global standards for the next generation of technologies), as well as Beijing's cybersecurity law and push for digital sovereignty, call attention to the DSR's normative dimensions. China's moves in the digital domain warrant closer scrutiny. The European Union and its member states need to act on the DSR's economic and normative challenges to European industrial competitiveness and European ideas about digital sovereignty, individual privacy, a data-driven society and free flows of data.

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Introduction

China's international presence and its Belt and Road Initiative (BRI) have taken a pronounced digital turn. With the introduction in 2015 of the Digital Silk Road (DSR) as part of the BRI, the focus of China's overseas activities shifted from transport infrastructure and trade networks towards expediting the global expansion of Chinese technologies. This ranges from telecommunications networks and smart cities to e-commerce and finishing China's new satellite system. Complementing the domestic economic development strategy *Made in China 2025*, which set out to establish China as a global leader in various high-tech fields, Beijing published its *Internet Plus* policy in 2015 and is now rolling out *China Standards 2035*. The latter is a 15-year blueprint that aspires to set global standards for the next generation of technologies, including 5G, artificial intelligence (AI) and the Internet of Things (IoT). As such, the DSR essentially combines the domestic push to export Chinese technologies developed with assertive industrial policies, with a broader agenda to augment interoperability and compatibility between Chinese and overseas technological networks, on Chinese terms.

Only more recently has the DSR started to attract international attention. Doubts about Huawei as a trustworthy provider of 5G telecommunication networks, fuelled by the US government, made for heated debates worldwide because of security concerns. This debate also relates to a broader discussion on the challenges that China's state-controlled approach to internet governance presents to Europe's open and free cyberspace. The promotion of this approach – with accompanying norms and technical standards – in multilateral institutions, especially the International Telecommunications Union (ITU), puts Beijing's ambitions on full display.

China's moves in the digital domain warrant closer scrutiny, as they fuel concerns about the sustainability of European ideas on digital sovereignty, a data-driven society, individual privacy and free flows of data. The COVID-19 pandemic adds further urgency to these worries, as it gave an immediate push towards a digital society. In particular, governments around the world are resorting to digital instruments – including contact tracing and digital surveillance – to monitor and prevent spreading of the virus.

Following the framework of Fudan University's DSR Centre, the DSR's concept, objectives and activities are analysed in the fields of digital infrastructure, trade and finance, people's hearts and policy. Particular attention is paid to the normative dimension, including *China Standards 2035*, China's cybersecurity law and its push for digital sovereignty, which contributes to the spread of Chinese digital standards. Finally, this report highlights the implications of the DSR for Europe, and calls attention to the research and policy challenges that the EU and its member states must tackle in the years ahead.

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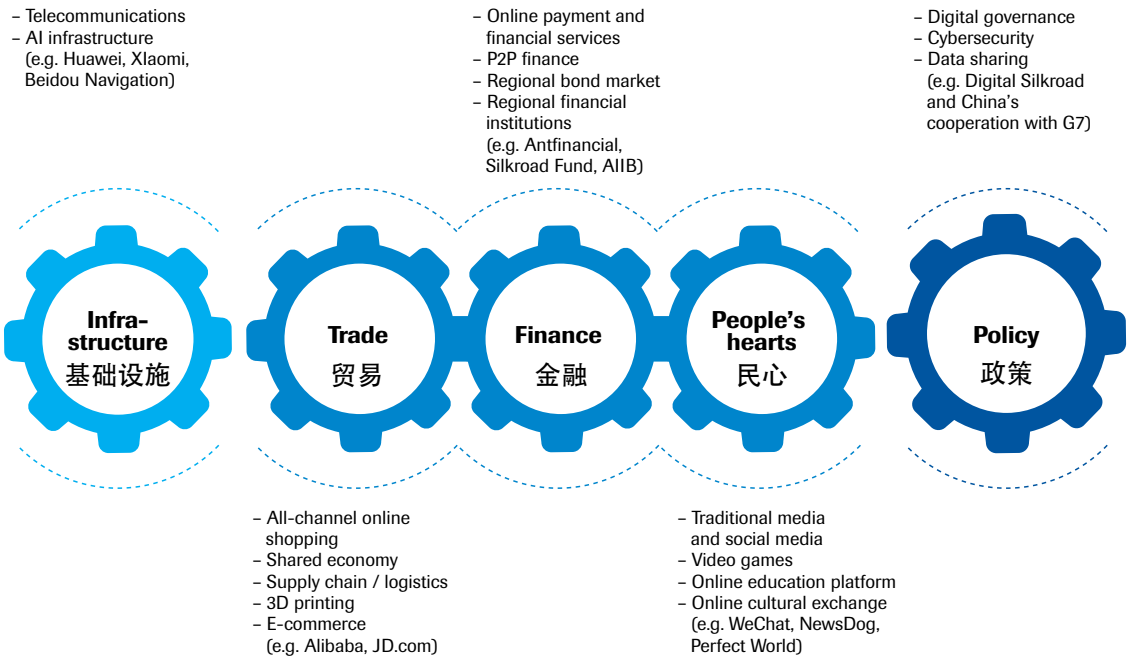
The Chinese conceptualisation of DSR

China's bid to modernise and reform its domestic manufacturing sector is highlighted in the *Made in China 2025 strategy (MiC2025)*, which was issued in 2015. This unprecedented industrial policy aims to transform the Chinese economy from a labour-intensive, low-end manufacturing-focused model to a technology-intensive and innovation-driven knowledge economy, thereby positioning Chinese companies at the forefront of global innovation. By refocusing global attention on Beijing's attempts to obtain global technological leadership, MiC2025 became a key trigger of the dramatic turn in the US–China relationship from generally cooperative to conflictual.

Figure 1 Key aspects of China's DSR


– Telecommunications
– AI infrastructure (e.g. Huawei, Xiaomi, Beidou Navigation)
– Online payment and financial services
– P2P finance
– Regional bond market
– Regional financial institutions (e.g. Antfinancial, Silkroad Fund, AIIB)
– Digital governance
– Cybersecurity
– Data sharing (e.g. Digital Silkroad and China's cooperation with G7)
Infra-structure 基础设施
Trade 贸易
Finance 金融
People's hearts 民心
Policy 政策
– All-channel online shopping
– Shared economy
– Supply chain / logistics
– 3D printing
– E-commerce (e.g. Alibaba, JD.com)
– Traditional media and social media
– Video games
– Online education platform
– Online cultural exchange (e.g. WeChat, NewsDog, Perfect World)

Source: *Fudan University Digital Belt and Road Centre, DSR Bluebook 2018*, p. 10, translated.

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The BRI has since 2013 embodied the Chinese government's aim to redefine globalisation and multilateralism to suit China's interests, which is only natural from a Chinese perspective. As the world moved into a new phase of technological innovation and digital connectedness, the official inclusion of a digital element to the BRI fitted seamlessly into the domestic and international strategies of the Chinese government. Building on BRI partnerships with other countries, Chinese President Xi Jinping has since 2017 called for the pursuit of innovation-driven development and greater cooperation in frontier areas such as the digital economy, AI, nanotechnology and quantum computing, and the development of big data, cloud computing and smart cities. Hence, the DSR employs next-generation digital technologies and business models to improve transnational connectivity.

In a March 2015 article, China's official state press *Xinhua News Agency* defined BRI connectivities as 'five connectivities and three communities' (五通三同): connectivity in infrastructure, trade, finance, 'people's hearts' and policy; and the community of interest, destiny and responsibility. As a BRI subset, the DSR serves three main purposes: first, to improve the regional and international connectivity in five aspects, namely **infrastructure**, trade, finance and 'people's hearts' (in this report, grouped together under **business**) and policy (here, **regulation**).[1] These five aspects are outlined by the Digital Belt and Road Centre of Fudan University, one of the key institutions in China working on the topic (see Figure 1 above).[2] Second, the DSR sets out 'to promote the upgrade and innovation of traditional industries and employment in BRI countries by opening up China's market with China's digital assets'.[3] While stimulating much-needed development in BRI partner countries, in effect, this largely boils down to stimulating innovation and upgrading industries and employment in China, while creating dependencies on China's digital economy. Finally, DSR's third objective, according to various Chinese experts,[4] is 'to optimise the regional industrial layout and to form the basis of a regional community with shared economic interests in order to create the global value chain' where China, instead of the West, plays the central role. This points to greater integration between Chinese and overseas technological networks in China's neighbouring regions (especially Southeast Asia) and beyond, into Africa.

1 In doing so, the authors attempt to facilitate comparison between the Chinese conceptualisation of DSR with the European conceptualisation of digital connectivity, which distinguishes three elements: infrastructure; business; and regulation.

2 Fudan University Digital Belt and Road Centre (2018), p. 10 (in Chinese).

3 Fudan University Digital Belt and Road Centre (2018), p. 3 (in Chinese).

4 Dong and Bai (2017), 'The Politico-Economic Analysis of "One Belt One Road": The Enrichment and Development of Marxist Political Economics', *Journal of Shaanxi Normal University* (Philosophy and Social Sciences Edition), 2017(03), p. 17 (in Chinese); and Dai and Song (2019), 'Will "One Belt One Road" Help China Restructure GVC', *World Economy Studies*, 2019(11), p. 108 (in Chinese).

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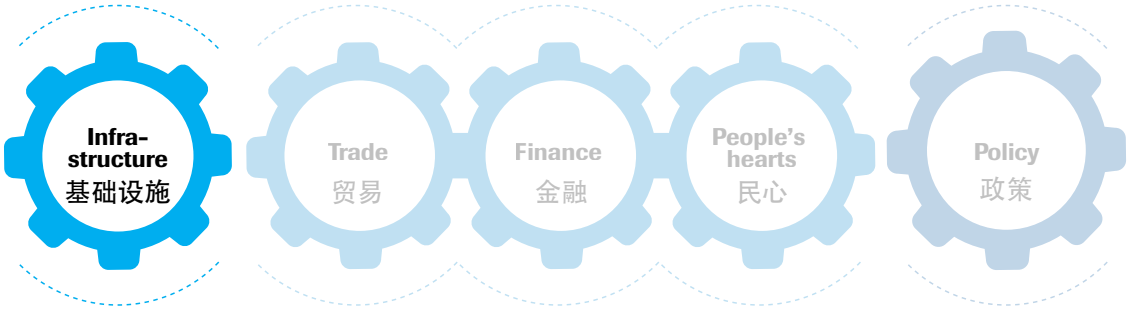
Infrastructure



Undertaken by Chinese tech-giants such as Huawei and ZTE, Chinese companies are now leaders in building digital infrastructure worldwide. This includes telecommunications (5G) networks and submarine cables, smart cities, satellite systems and cloud computing. In terms of the global market share of 5G telecommunications equipment, as of 2018, Huawei is the world leader at 28 per cent, while ZTE ranks fourth at 10 per cent (with Europe's Nokia and Ericsson in between, at 16 and 14 per cent, respectively). Chinese companies also lead in the number of 5G patents, wherein Huawei alone has 3,325 declared patents, compared to 2,038 for Nokia and 1,423 for Ericsson. Separately, in Southeast Asia, Chinese companies also dominate the smartphone market, with 60 per cent of the market share in ASEAN-5 countries (that is, Indonesia, Malaysia, the Philippines, Singapore and Thailand) in 2019.

Smart cities are also an integral part of China's DSR. In this new way of urbanisation, digital technologies such as AI, 5G telecommunications networks and the IoT facilitate the further development of industries enabled by the digital revolution. Chinese companies are leading forces of smart city development in many parts of the world, including in Central Asia and Russia, Africa, the Middle East, and even in the EU. The Chinese government and private companies act in sync, as the national and local governments assist companies to survive and expand their (global) footprint, with tax subsidies, preferential loans, grants and favourable input prices.

Yet China's aspirations reach even further, with space development becoming more prominent on the DSR agenda. The Chinese government has created an alternative to the United States' Global Positioning System (GPS), Russia's Global Navigation Satellite System (GLONASS) and the EU's Galileo system. The BeiDou Navigation Satellite System sets out to be fully independent in imaging, communications and geolocation services, and the Chinese government is offering BeiDou's services to other countries.

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Beijing also supports international space initiatives, such as the PakSat Multi-Mission Satellite – a joint development and launch by China and Pakistan – and the upcoming AfghanSat 2 system in Afghanistan, for which Chinese companies provided major technical and financial assistance. On the multilateral level, the Asia–Pacific Space Cooperation, led by China, allows China to transfer technical know-how and equipment to target markets.

Although the DSR is a largely state-led initiative – more so now than several years ago – Chinese technology companies are the key players. Domestic research and innovation, massive financial investments and political push boosted Chinese companies' incentive and capabilities for the export and deployment of digital technologies. Also, China's domestic market has much to gain from digital development and e-commerce in countries where the DSR can carve out a role for Chinese companies in other country's investments in digital infrastructure. Importantly, this digital infrastructure provides the base that e-businesses need to operate successfully in the long run, and to position Chinese companies as global standard-setters.

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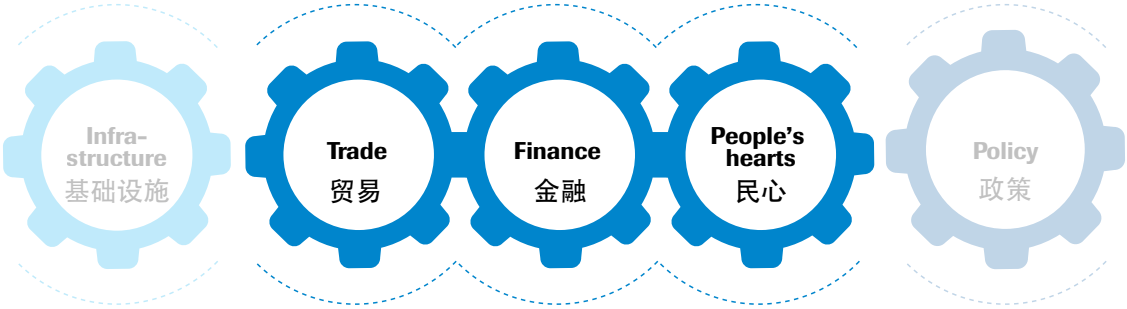
Business: trade, finance, people's hearts



In 2015, the Chinese government launched its *Internet Plus* policy, which is interconnected with *Made in China 2025*. This policy sets out to integrate the internet with traditional industries, thereby furthering (cross-border) e-commerce and internet banking as engines for economic growth. The DSR opened new markets for these companies, with Chinese e-commerce companies offering cheaper alternatives to goods and services than their European and American competitors. Five years on, China's platform economy – spearheaded by Baidu, Alibaba and Tencent (the 'BAT') – is one of the country's key economic pillars and its companies are among the largest in the world.

As illustrated in figure 2, digital platforms are diverse in nature and function. While US-based platforms currently occupy dominant market shares in many regional markets, especially the European market, Chinese e-commerce and internet companies are rapidly gaining market share. It is likely that by combining corporate initiatives with a state-led push, these Chinese companies will dominate in developing markets in the coming decade.

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Figure 2 Types and functions of internationally operating digital platforms

Source: adjusted from TIAS.

Combined with the export of digital infrastructure, Chinese platform companies can also assist developing economies to leapfrog into the next phase of development, for example, by connecting them to the global e-economy. The DSR thereby also furthers e-commerce trade in parts of the world where physical payment and flow of information are difficult.

Chinese digital 'Going Out'

Although digital platforms are nascent in many emerging economies and developing countries, eventually they will redefine economic relationships and restructure ever more parts of the economy. Greater global presence of Chinese companies through DSR projects will build the brand image of Chinese companies, thereby 'winning people's hearts'. When they become market leaders, these companies will be (market) standard setters – benefitting also from the accompanying monopoly and/or customer lock-in

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advantage, in similar ways to how European and American companies have profited for many decades already. Also, these companies – assisted by the Chinese government – will be well positioned to push for the adoption of their technical standards in standard-setting bodies.

E-commerce companies thus play a role in winning the hearts of people – and are thereby an instrument of soft power in public diplomacy – in this case, serving the purposes of the Chinese government. Chinese companies, assisted by their government through political and financial means, fulfil the unmet needs of digital connectivity in the Global South, including educational programmes, health care programmes and digital infrastructure projects to connect rural areas to the world wide web.

Finance has also become an important aspect of connectivity in the DSR strategy, as it can facilitate trade and infrastructure projects. After all, improving information technology (IT) infrastructure and building payment systems that further the financial inclusion of large segments of the population also enhances business opportunities for other business sectors. For companies in the financial sector, cooperating with local companies is important to expand in specific regions and globally. For example, Alibaba's AntFinancial has largely expanded its business activities in Southeast Asia thanks to its extensive cooperation with local partners, such as PayTM in India and Touch'n Go in Malaysia.[5]

5 Fudan University Digital Belt and Road Centre (2018) (2018), p. 8.

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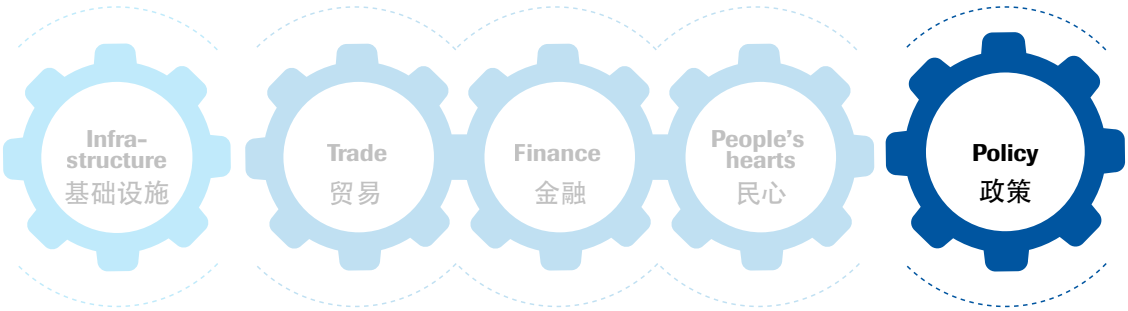
Policy



China's shifting focus towards digital infrastructure investments – coupled with the export of equipment and technologies by Chinese companies – is also changing the country's engagement with international standards. Beijing is moving from being a rule-taker to a rule-maker on standardisation, articulating how new technologies should be commercialised worldwide, and making use of the leadership position of Chinese companies in next-generation technologies and in the global market.

In the coming decades, digital data will drive the economy forward. Companies' success depends increasingly on access to data and effective analytics skills. This raises difficult questions about the collection, storage and transfer of individual and industrial data. Eventually, a more prominent cyberspace will lead to blurred physical borders between states in terms of business and trade. Hence, commonly agreed norms, rules and standards are needed to ensure a free, open and secure cyberspace that ensures cross-border digital connectivity.

Attempts to shape global standards and norms are parts of the 'policy' element of the DSR. With this, China is an increasingly ambitious competitor to the United States, in particular, in shaping international technological and industrial standards. Standard-setting ability brings commercial and normative benefits, especially now that state borders are blurred in cyberspace.

Beijing's ambitions are apparent on three fronts, as discussed in more detail below. First is the push for standard-setting prowess, as evidenced by *China Standards 2035*. Second is China's domestic cyber regulation, which impacts the workings of Chinese and foreign companies in China, and determines China's position in international discussions on data flow and cyber governance. Finally, China's growing ambitions are evident from its growing activism in international institutions and networks.

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Standardization: China standards 2035

China's international DSR outreach and its globally operating companies grow Beijing's ability to (re)shape international standards of emerging technologies. Yet this prowess starts at home, with strong, innovative companies. Hence, as a follow-up to *Made in China 2025*, Beijing is set to release later in 2020 *China Standards 2035*,[6] which crafts and outlines domestic industrial standards with the aim of eventually internationalising them.

Countries that have chosen specific companies to construct their hard and soft digital infrastructure face a lock-in effect: the difficulty of switching to another company, because of the additional costs involved and for technical compatibility reasons. This means that DSR partner countries over time develop a vested interest in the success of Chinese technology companies – as they are 'first movers' in these countries. Hence, Chinese companies – especially in South(east) Asia and in Africa – will contribute to the success of *China Standards 2035*.

Domestic regulation and its overseas implications

The Chinese government recognises data as a crucial resource for development in its National Informatisation Strategy (2016–2020). At the same time, concerns exist about the 'potential harm' for China's cybersecurity stemming from data flow from China to abroad. Building on this concern, the Cybersecurity Law of China was passed in 2017, creating privacy protection regulations inspired by Europe's personal data protection regime, the General Data Protection Regulation (GDPR). In addition to the general legal obligations of obtaining consent before acquiring data, just like the GDPR, China's Cybersecurity Law differs from the GDPR in that it also introduces restrictive data localisation compliance requirements. The localisation provision applies to personal data and important data, loosely defined as information that implicates national security, the macro-economy or public interest of China. Enforcement marks another key difference between China's Cybersecurity Law and Europe's GDPR. While the GDPR is enforced by the independent Data Protection Authorities (DPAs), the enforcing entity of the Chinese Cybersecurity Law is a governmental body. This raises questions about whether China's Cybersecurity Law can protect individuals also from the state.

6 At the time of this report's publication, the planning document was publicly available while the industrial plan that is to follow from this was still in the making.

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The Cybersecurity Law impacts foreign businesses operating in China in several ways.[7] First, China's cross-border data-flow regulation is more restrictive than the GDPR, creating an asymmetry that favours Chinese companies. In this asymmetry, foreign businesses operating in China are compelled to localise valuable data resources in mainland China, while Chinese companies operating abroad can transfer the same type of data across borders without restriction. Second, the legal terms used in China's Cybersecurity Law are vague, leaving much of the law's interpretation to its enforcement. This increases uncertainties for foreign businesses operating in China. Third, and this negatively impacts Chinese and foreign companies alike, data are crucial resources for economic activities, and restrictions of data flows will inevitably jeopardise the efficiency of, and even impede, business and trade.

Separately, the National Intelligence Law of China, which was adopted in 2017, raises questions about the trustworthiness of Chinese telecommunication companies operating overseas in general. Article 7 of the law specifies that 'organisations and citizens are obliged to support, assist and cooperate with intelligence organs', and Article 14 authorises the intelligence organs to demand assistance from institutions, organisations and citizens. Provisions in China's National Intelligence Law remind us that it would be illegal for Chinese telecommunication companies to say no, should Chinese intelligence agencies demand information from them.

Global cyber governance

Key international platforms for technological standard-setting and governance are the Geneva-based International Telecommunication Union (ITU, a multilateral organisation under the United Nations (UN) flag), the International Corporation for Assigned Names and Numbers (ICANN, a multi-stakeholder organisation initiated by the United States) and the Wuzhen Internet Conference (initiated by China).

China is a long-time member of the ITU, which was established in 1865 to manage standards for telegraph and later telephone and radio connection and transformed in 1947 into a UN specialised organisation to support the development and international policy-making for telecommunications. In recent years, the Chinese government has been strengthening its position in the ITU, facilitated by the fact that since 2015 the ITU's Secretary-General has been a Chinese national. Beijing actively advocates for cyber sovereignty, wherein cyberspace is considered as an extension of states' physical

7 While the existing Cybersecurity Law has no extra-territorial effect, article 2 in the draft of a new Chinese law 'the Data Security Law' published on 2 July 2020 claims jurisdiction on foreign companies and individuals that collect Chinese data overseas. At the time of publication of this Report, the final version of the Data Security Law – let alone its interpretation – was unknown. Therefore, no detailed discussion of the law is included in this analysis.

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territory. Most recently, it has been assertively pushing new international standards for facial recognition and surveillance technology to create universally consistent technology. Beijing has also proposed far-reaching modifications to the internet through its New Internet Protocol. Eventually, the introduction of various internet alternatives to the currently used Internet Protocol (IP) might lead to a decoupling of the internet. If China is able to redesign and adopt this new IP system, it is conceivable that big technology companies like Google will also try to develop their own system to control what happens within their subdomain of the internet.[8]

Even if the ITU would arguably have been the logical home also of internet governance, the United States in 1998 pushed for the establishment of the Internet Corporation for Assigned Names and Numbers (ICANN). This non-profit organisation, with a governing board consisting of internet operators and a governmental advisory board with 112 members, until recently acted under the supervision of the US Ministry of Trade. Following criticism of excessive US-centrality – and a boycott of the organisation by China between 2001 and 2009[9] – ICANN transited in 2016 to a more multi-stakeholder approach, now endorsed by human rights groups and (primarily US) companies.

The inclusion of non-governmental organisations that speak out on digital human rights – including consumer and data protection and digital freedom – is becoming increasingly important today, as technology penetrates everyday life. The ITU, however, remains a technical organisation where telecommunication companies participate in meetings as non-voting sector members, presenting draft proposals for new standards. Only a limited number of governments – with the technical input of their companies – can push their agendas forward. Clearly, this benefits China, as Chinese companies are increasingly more technologically advanced and are gaining significant market share.

In parallel with its growing activism in international bodies like the ITU, the Chinese government pursues a track of its own: the World Internet Conference (WIC), or Wuzhen Summit. Since 2014, the Cyberspace Administration of China has organised this annual event to align the positions of relevant actors on global cyberspace governance. The conference celebrates Chinese technological and commercial advances and explores norms for state conduct in cyberspace.[10] Leveraging the importance of the Chinese market and its production chains, the Wuzhen conference successfully engages business leaders (including from Apple and Google) and representatives of friendly states like Russia, a number of Central Asian countries, as well as the ITU. Western governments, however, have not sent high-level participants since the first conference in 2014, when the organisers sought to push through a declaration in support of the initiative and the policies that China defends.

8 Daniel Voelsen (2019), 'Cracks in the Internet's Foundation', SWP Research Paper, Berlin, November, p. 28.
9 Rogier Creemers (forthcoming 2020), 'Common Destiny in Cyberspace: China's Cyber Diplomacy'.
10 Rogier Creemers (forthcoming 2020), 'Common Destiny in Cyberspace: China's Cyber Diplomacy'.

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Implications for Europe

Armed with a digital strategy and a European approach to AI and robotics, the EU is now trying to catch up with the leaders of the Fourth Industrial Revolution: China and the United States. Yet the EU overlooks the fact that it has to participate in order to write the rules of the game. In other words, Europe cannot win if it only plays defensively, meaning that European companies need to be real global players.

Moving forward, the DSR will have serious implications for Europe, both within EU borders and in multilateral institutions and in third countries. First of all, China's increased presence in the infrastructure, business and regulatory domain challenges the EU and its member states on the economic and security fronts. European capitals have been in a bind about whether to adopt Huawei's 5G infrastructure. Lacking a consistent and decisive EU-wide response on this matter, the EU became a playground of intensifying US–China rivalry. Since decisions about whether to ban a company from their markets lie with EU member states, the EU is becoming the battleground for the United States and China in their fight for technology dominance.

Also in the business domain, Europe is an important battlefield of Chinese and US technology prowess. AliExpress (Alibaba's overseas branch) is implementing its 'local to global' strategy to compete better with Amazon in Europe. This strategy – now in place in Spain, Italy, Turkey and Russia – allows Western companies to use the online platform to sell their own products. While the Chinese company has not disclosed how many European retailers now sell products through the online platform, it plans to expand this strategy to other markets in Europe. As a non-European company, AliExpress – like Amazon and eBay – is all the more challenged by the EU's privacy rules and the diversities of the European market, including on language and internet access, but AliExpress is now in the top three leading marketplaces in thirteen EU member states.

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Figure 3 Leading marketplace by country in Europe

Source: *European Ecommerce Report 2019*, p. 10.

In the regulatory field, TikTok is taking a proactive approach to lobbying EU policy-makers in order to win the European market. Hiring multiple executives from Snapchat, Huawei and Facebook, Bytedance (TikTok's parent company) has been participating in Brussels on copyright reform, in France at trade association meetings, and in the United Kingdom through the Internet Watch Foundation.

Lastly, China's efforts to reshape and introduce international standards are thus growing, as clearly evidenced by *China Standards 2035* and Beijing's growing activism in the ITU. The Chinese government benefits from the leadership position that Chinese companies take in emerging technologies and in the global market. Yet if Chinese companies in particular play a more prominent role in standard-setting proposals, there is a growing risk of state interests prevailing over a human-centric approach. At a time when the EU increasingly pushes back against the capitalist-driven digital monopolies of US technology firms, this highlights the need to appeal for the European

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approach, which holds that data regulation should protect individual privacy, rather than serve the interests of the state or big technology companies.

This is putting pressure on the role of the EU as a regulator. After all, China's positions on individual privacy, data localisation and digital governance clash on important fronts with Europe's approach.[11] For Beijing, cyber sovereignty is of paramount importance. Cyber sovereignty provides the normative basis for various digital policies, including online censorship and restrictions on the export of data collected in China – within what some call the 'great data wall'.

For the EU and its member states, China's commercial power (with resulting technological leverage) and assertive promotion of new standards will thus be challenging, also in the normative sense. Especially in uncharted territory where ethical aspects and digital human rights – such as online freedom, privacy and transparency – also play a role, European capitals will have to define their red lines, but also craft feasible alternatives to compete with the Chinese approach.

Finally, greater presence by European companies in the e-economy also in third countries will be required to push back against the negative effects of China's DSR, which is responding to real needs but at the same time spreading authoritarian norms in the field of cybersecurity and internet governance, including high-tech surveillance. Focusing on so-called digital Official Development Assistance (ODA) as a cornerstone in Europe's digital connectivity agenda can help to deliver inclusive and sustainable growth in third countries, while also serving Europe's economic and strategic interests.

11 Rogier Creemers (2020), 'China's Conception of Cyber Sovereignty: Rhetoric And Realisation', Available at SSRN: https://ssrn.com/abstract=3532421.

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Digital on Chinese terms?

The Digital Silk Road adds an extra dimension to China's Belt and Road Initiative and puts China's aspirations to lead the Fourth Industrial Revolution on full display. Building on the success of its domestic industrial strategy, China made significant steps to further the implementation and use of Chinese technologies in BRI countries. This has set the stage for China to further its own standards as the Fourth Industrial Revolution unfolds. On infrastructure, the 5G hardware and software of Chinese digital giant Huawei has been at the centre of the discussion. Beyond this, China is pushing its agenda in the field of smart cities and space by introducing its own alternative to GPS and assisting countries to launch Chinese satellites. The Chinese government is now stepping up its game with the introduction of *China Standards 2035*, pushing digital standards with Chinese characteristics at home and abroad. To this end, the Chinese government and Chinese companies are strengthening their presence in international organisations. Lastly, in the business domain, the Chinese government focuses on breeding digital giants in the e-economy. The DSR reinforces China's capabilities to support emerging economies in their digital transformation, adopting Chinese platforms and using these to their advantage, for example, by facilitating trade in remote areas.

The growing presence and influence of Chinese companies and the Chinese state in digital connectivity, combined with China's focus on digital sovereignty, pose economic, ethical and security challenges to Europe. At the same time, they complicate efforts to cooperate with China in the digital field. Responding to real needs in the market, Chinese technology giants are developing a strong presence in the European market and are early movers in developing countries and emerging economies, in particular in South and Southeast Asia and Africa. Focusing on data localisation domestically and cyber sovereignty in its international relations, China is now more assertively pushing its vision of cyber governance – both in BRI partner countries and in international institutions. China aspires to become a rule-maker from its current status as a rule-taker in the global discussion of standardisation for next-generation technologies.

Amid the US–China tech rivalry, Europe has to be more assertive in defending its own economic and strategic interests and promoting European norms. The EU and its member states must double down on efforts to develop players – that is, European technology giants and e-businesses – in the digital economy that will contribute to inclusive and sustainable growth at home and abroad, while also strengthening Europe's standard-setting power in the digital age.

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